

**COST-BASED OPTIMIZER FOR AN XML DATA REPOSITORY WITHIN A  
DATABASE****ABSTRACT OF THE DISCLOSURE**

Cost-based optimizer functionality for an XML database repository provides means for optimizing the execution of database queries that access XML resources in the database repository. Statistics about XML resources that are stored in the database repository are gathered, stored and utilized by a query optimizer to compute computational costs associated with each of multiple methods of accessing particular XML resources requested in a database query. Hence, the optimizer is able to select the most efficient query execution plan based on the costs of possible access paths. In one embodiment, specific statistics about the hierarchical structure of XML resources stored in the XML database repository are gathered, stored in a relational table in the database management system, and used to compute the selectivity of query predicates and the index cost associated with traversing one or more indexes to access requested XML resources.